

Policy Implications of Excess Fossil Fuels

The cost of converting the world's advanced economies off of fossil fuels and onto renewable non-carbon fuels can be paid for with money that would otherwise go to OPEC. Ironically, once the U.S. adopts a Cap, Tax and Trade policy to begin seriously taxing oil imports, steadily reducing use via the cap, and formally acknowledging the necessity of preventing further Global Warming, market actions will thereafter force oil exporters into paying the cost of curing the West's oil addiction. Here is why that is true:

We have a global warming problem to the extent that we have the capability to produce more CO₂ emissions than the atmosphere can handle without seriously harmful climate change. The IPCC has noted that we must substantially reduce our current level of CO₂ emissions in order to avoid an atmospheric concentration above 480 ppm. The current consensus among scientists is that a concentration above 480-500 ppm is almost certain to cause climate change impacts beyond our economic capacity to mitigate. The combination of already identified oil reserves and coal deposits clearly contains enough carbon to take the atmospheric concentration well past 500 ppm. In fact, that combination can easily take the concentration well past 1000 ppm, a level at which it's pointless to model climate impacts, they are so obviously devastating.

The underlying question of current policy debate is: How do we reduce GHG? That unavoidably translates to reduction of demand for fossil fuels. In market economies, reduced demand usually equals reduced price. Unfortunately, the current climate change policy debate labors under a legacy belief that "peak oil" must occur at some point. That feeds a general belief that we could not possibly be in a permanent oil glut. But, the fact is that we are in a permanent glut driven not by an infinite supply of the commodity, but by the disastrous economic consequences of burning the existing finite supply.

We have not faced that type of glut before. So, we have difficulty incorporating its implications into our policy analyses. However, the net effect of having more fossil fuels than we can ever afford to burn is that our conventional assumptions about market cap & trade vs tax policies must be examined in a different light. The added factor which the permanent glut of fossil fuels puts into the mix is that the usual routes to price signaling will be ineffective. Any GHG policies that rely on pricing signals to effectively reduce demand will be followed by fossil fuel price reductions that neutralize the price signal. And, whereas in most cases there is plenty of time to adjust price signals if the initial ones fail to induce the desired result, in the climate change context, a signal which arrives too late is worthless.

In any event, demand for fossil fuels must disappear while there are still billions of barrels of oil, and billions of tons of coal left in the ground. If those barrels and tons are not still in the ground by the time we have completed the switch to new energy sources, then we will have devastated our economies. That's the definition of a ***permanent glut***: Having more of something than you can ever possibly use. If you are an owner of a commodity in permanent glut, you must convert that to other assets before your buyer's demand disappears completely. Accordingly, all OPEC countries have an economic

imperative to keep oil too cheap for consumers to resist, especially so if the consuming countries begin taxing at the point of import.

Thus, the irony of taxing oil at the dock: Steadily raising taxes on oil at the dock will steadily drive down prices at the wellhead. By countering each wellhead price decrease with oil tax increases, the West can pay for its conversion off of fossil fuels with cashflows that would otherwise have gone largely to the Middle East. Why are we waiting to start the tax on oil?

But, the risk of relying solely on a carbon tax policy instead of cap & trade is that the price signal sent by the tax can and will be readily negated by suppliers dropping their prices enough to offset the impact of the tax on consumers. Since the suppliers have no choice but to drop prices if they are ever going to unload their otherwise worthless commodity, the tax system must anticipate supplier price cuts and structure the amount of the tax to rise steadily over time. The advantage of a tax approach which steadily raises taxes at the point of original supply (dock in the case of oil and LNG; mine in the case of coal; wellhead in the case of domestic natural gas), is that the vast bulk of tax revenues will be funds that otherwise would have gone to middle east governments. Thus, the economic burden of converting off of fossil fuels can fall largely on the suppliers instead of the consumers. However, the political challenge of maintaining a public policy that constantly drives gas prices higher in the face of falling oil prices should not be overlooked. Maintaining the policy would be made easier and more effective if the tax revenues are devoted to accelerating the deployment of non-fossil transportation infrastructure and non-fossil power supplies such as solar and wind.

Cap and trade will work in the glut context, if the cap is tight and declines steadily. But, the increasingly desperate need of fossil fuel suppliers to convert their declining-value asset will create enormous pressure to put leaks in the cap. And the nature of the greenhouse phenomenon is that large leakage anywhere is the same as small leakage everywhere. The most effective policy will be tight cap & trade combined with taxes at the point of import. The risk of leakage can be reduced if the tax revenues are devoted to accelerating the deployment of the non-fossil alternatives and their distribution infrastructure, and to incentive enforcement of international cap agreements.

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